EXHIBIT 9-A

32782 Correction P3297

OFFICIAL REPORT OF PROCEEDINGS

Before The

SECURITIES AND EXCHANGE COMMISSION

DOCKET No.....

外-25

UNITED LIGHT AND RAILWAYS COMPANY, et al.

Vashington, D.C.

In the matter of _.

24 November 1952

31-3207 thru 31-3353

ACE REPORTING CO.

(OFFICIAL REPORTERS)
261 CONSTITUTION AVE., N. W.

WASHINGTON I, D. C.

Telephone MEmopolitan 2777

ASSOCIATES IN PRINCIPAL CITIES

| | n | | | |
|---|---|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| h | | | | |
| | | | | |

$\underline{I} \underline{N} \underline{D} \underline{E} \underline{X}$

| WITNESS | DIRECT | CROSS | REDIRECT | RECROSS |
|-----------------------------|--------|--------------------------------|----------|---------|
| | | | | |
| Erwin C. Brenner | 3222 | 3254 | 3334 | |
| 상사 (이번,) 왕인 하는 말이 그렇게 되었다. | | 3338 | 3352 | |
| Ernest G. Black | 3251 | 원이 100명이 있는 것은 2008년 - 120일 | | |

EXHIBITS

| | | FOR IDENT. | IN EVID. RESERVED |
|-------------|-----------------|------------|-------------------|
| Applicant's | 70 | 3217 | |
| | 71 | 3217 | |
| | 72,73 | 3217 | |
| | 74 to 78, incl. | 3218 | |
| • | 79 to 81, incl. | 3219 | |
| | 82 | 3550 | |
| | 70 to 82, incl. | | 3221 |
| | 83 | | 3257 |
| | 85 | | 3306 |
| | 86 | | 3328 |
| | 87 | | 3333 |

Documents were received in evidence by reference, Page 3211.

Monick ht

I N D E X

| <u>WITNESS</u> | DIRECT CROSS | REDIRECT | RECROSS |
|------------------|--------------|----------|---------|
| | 16 48 | 128 | |
| Erwin C. Brenner | 132 | 146 | |
| Ernest G. Black | 45 | | |

EXHIBITE

| | | FOR IDENT. | IN EVID. | RESERVED |
|-------------|----------------|------------|----------|----------|
| Applicant's | 70 | 11 | | |
| | 71 | | | |
| | 72, 73 | | | |
| | 74 to 78, incl | . 12 | | |
| | 79 to 81, incl | | | |
| | 82 | 14 | | |
| | 70 to 82, incl | | 15 | |
| | 83 | | | 51 |
| | 85 | | | 100 |
| | 86 | | | 122 |
| | 87 | | | 127 |
| | | | | |

Documents were received in evidence by reference, page 5.

Monick Jfl

BEFORE THE

SECURITIES AND EXCHANGE COMMISSION

In the Matter of

: File No. 54-25

UNITED LIGHT AND RAILWAYS COMPANY, et al. :

S.E.C. Building, Washington, D. C. 24 November 1952

Met, pursuant to notice, at 10:00 a.m.

BEFORE:

WILLIAM W. SWIFT, Hearing Examiner.

APPEARANCES:

LOUIS E. CLEVENGER and JACK I. ELIAS, on behalf of the Division of Public Utilities, Securities and Fxchange Commission.

ROBERT L. FOOTE, of Sidley, Austin, Burgess & Smith, 11 South LaSalle Street, Chicago, Illinois, on behalf of American Natural Gas Company.

JOHN DERN, of Sidley, Austin, Burgess & Smith, 11 South LaSalle Street, Chicago, Illinois, on behalf of American Natural Gas Company.

MAURICE H. VAN SUSTEREN, Madison, Wisconsin, on behalf of the Public Service Commission of Wisconsin.

PROCEEDINGS

Hearing Examiner: Pursuant to the Order entered by this Commission in the matter of United Light and Railways Company, American Light and Traction Company (now American Natural Gas Company), the hearing is convened.

I notice that appearances have been entered with the reporter for the formal parties to the proceeding. I also notice that Mr. Maurice H. Van Susteren has entered an appearance in behalf of the Public Service Commission of Wisconsin. Are there any other persons here desiring to be heard?

(No response.)

Hearing Examiner: Let the record show that no one answers my inquiry and that no one applies for leave to be heard.

Mr. Van Susteren becomes automatically a party to the proceedings under the Commission's rules.

Are you ready to proceed, gentlemen?

Mr. Clevenger: Under letter dated September 12, 1952, over the signature of Harry Slater, First Assistant City Attorney for the City of Milwaukee, we have a communication that the City of Milwaukee had heretofore filed an appearance in this docket early in the proceeding and that they would like to be given an opportunity to be heard. They don't respond to the call this morning, but I would like to have that notation in the record at least.

Hearing Examiner: Very well, Mr. Clevenger. Under the terms of this order it seems that we should pick up the paging and the exhibit numbers were we left off when the record was previously closed; is that right?

Mr. Clevenger: I think that is correct.

Hearing Examiner: That course will be followed.

Mr. Clevenger: I would like to have the record show that the Order of the Commission dated September 3, to which the Examiner has referred, being Holding Company Act Release No. 11464, was published in the Federal Register on September 10, 1952, Volume 17, No. 177, at Page 8166, as Federal Register Document No. 52-9886; that by order entered September 29, Holding Company Act Release No. 11512, and by order entered October 21, 1952, the hearing date originally designated for October 6th has from time to time been postponed until this morning, November 24.

Hearing Examiner: Thank you, Mr. Clevenger.

Mr. Clevenger: Since this is a reconvened hearing in File 54-25, I would like to have the record supplemented by incorporating by reference. The following portions of the annual U-5-S for the years 1947 to 1951, inclusive, of American Natural Gas Company, to wit: Exhibit D, being the financial statements together with its Exhibits 2-A, 2-B, F-1, F-9, G-11, and G-11-A for 1957; Exhibit D financial statements and its Exhibits D-2-A, D-2-C, F-1, F-7, G-10 and G-10-A for

jf4

the year 1948; financial Exhibits D, F-1, F-3, G-4, and G-4-A for the year 1949; Items 14, 14-A and the exhibits thereto, Item 14-B, C-1, C-3, D-4, and D-4-A for the year 1950; Items 14-A and -B, and the exhibits thereto, C-1, C-4, D-3 and D-4 for the year 1951.

A correction: Instead of the U-5-A for American Natural it is in fact entitled U-5-S for United Light and Railways for the years 1947 and '48, and for American Natural Gas company for the years 1949, '50 and '51, the first two years being File No. 30-103-2, and the remaining three years being File No. 30-80-2.

Hearing Examiner: Is there any objection to the material which Mr. Clevenger specified being brought into this record by reference?

Mr. Foote: No objection.

Hearing Examiner: The material which you have referred to, Mr. Clevenger, is incorporated in this record by reference.

(The documents as recorded above were received in evidence by reference.)

Mr. Clevenger: I believe that is all for the moment.

Mr. Foote: Prior to introducing our testimony I would like to make a statement summarizing the matters that we are going to talk about during the course of our testimony. I think in that way it will make it possible for us to clarify

JE# 5

our understanding of the issues and the company's position with respect to them as developed in the course of our testimony.

Hearing Examiner: Very well.

Mr. Foote: The hearing was called specifically to determine whether the advent of natural gas in Milwaukee caused such a substantial change in the relationship of the Milwaukee Solvay Coke Company, which I will refer to as the Coke Company, to the Milwaukee Gas Light Company, which I will refer to as the Gas Company, and the American Natural Gas System, as to make the retention of the Coke Company no longer reasonably incidental or economically necessary or appropriate to the operations of the American Natural Gas System.

In the order of December 31, 1947, the Commission suggested that when the Gas Company secured a supply of natural gas there might be some question whether the production of the Coke Company would be needed as standby, and whether the operations of the Coke Company would in time become completely disengaged from those of the Gas Company.

Our testimony will show that due to the extremely rapid growth in the use of natural gas which has taken place in the City of Milwaukee and in the service area of the Gas Company outside of Milwaukee, the need of the Gas Company for standby facilities in excess of its own manufacturing facilities is even greater than was anticipated prior to the

116

introduction of natural gas.

We will show that the operations of the Coke Company, far from becoming disengaged from the operations of the Gas Company, are closely geared to the Gas Company operations. The Coke Company is not only an important part of the emergency standby facilities of the Gas Company but is needed to enable the Gas Company to meet its contractual commitments to the Sewerage Commission of the City of Milwaukee in the day to day operations of the Gas Company.

The retention of the Coke Company in the American Natural Gas System is not adverse to the public interest or to the interests of investors and consumers, because the availability of an additional and diversified gas source is desirable in the event of emergencies such as might be caused by breaks in the natural gas pipeline through war or other factors that might cause a shortage affecting vital industries and homes.

The Milwaukee Public is being benefitted by the operation of the sewage disposal plant on gas, with the resultant cleanliness, convenience and efficiency. In addition the gas production of the Coke Company is being used effectively thereby giving added assurance to the community that the Coke Company will continue to operate and to furnish employment.

Due to the relatively low standby fee paid by the Gas

:27

Company, the Coke Company represents not only the best but the cheapest standby facility available. Thus the retention of the Coke Company, far from being detrimental to the American Natural Gas Company, is beneficial because it affords excellent and highly desirable standby facilities for an important subsidiary without additional expenditure.

We believe for the reasons outlined the Coke Company is truly retainable as another business. Aside from the numerous advantages to the Gas Company resulting from control of its principal standby facility, we shall also point out that as a practical matter if the Coke Company is to sell gas -- and it certainly would be an economic waste to flare the gas -- it must sell such gas through the facilities of the Gas Company, since the Coke Company itself has no distribution mains, has no gas storage holders, purifying apparatus, nor has it a franchise to sell gas to the public.

If the Coke Company were to sell gas at retail it would become a gas utility within the meaning of the Act, and therefore should be an appropriate company to remain in the American Natural Gas System. It is difficult to believe that the policy of the Act would require disposition of a company which, if it is to function normally, either must be a gas utility and hence an appropriate part of the gas system, or must sell its gas through a system company.

It has been suggested that the advantages of retention

gr8

could be obtained by appropriate contractual arrangements between the Gas Company and the Coke Company prior to the sale of the latter. While this might theoretically be a possibility, such contention itself constitutes an admission that the Coke Company is necessarily or appropriate to the operations of the Gas Company within the meaning of the Holding Company Act, and therefore admits the Coke Company is a business which may be retained within the system as long as the advantages of retention outweight the advantages of the sale or other disposition.

We shall develop in the course of our testimony some of the reasons for which any such contractual arrangements would be unsatisfactory.

Finally, as we understand the issues presented in this hearing, it is immaterial whether the Coke Company remains as a subsidiary of the Gas Company or should become a direct subsidiary of American Natural Gas Company. The only question presented is whether the Coke Company may be retained as a part of the American Natural Gas Holding Company System in which it represents less than 1 percent of the consolidated net plant but in which it is an important element for the protection of an important service area in the event of an interruption in natural gas service,

This hearing, as I understand it, is a reconvening of the earlier hearing and therefore the exhibit numbers I understand

will go along after the exhibit numbers which had been assigned in the earlier hearing. We have a number of exhibits which we have been requested by the staff to submit and have submitted in advance and which it appears will be most convenient to simply list at this time in order to get them in the record and identified, and with the understanding that the Commission can cross-examine on them as and when it pleases.

If that procedure is satisfactory I can list those exhibits, if someone knows the initial exhibit number.

Mr. Clevenger: Mr. Examiner, my present information is that the last Applicant's Exhibit No. in this docket was 69. It would therefore appear that the exhibits would commence with 70, with the understanding that if we discover in the meantime that there has been a supplemental exhibit sometime since the 69th number, that we may renumber them from that point forward.

Hearing Examiner: Very well.

Mr. Foote: Applicant's Exhibit No. 70 will be a statement showing maximum sendout in any one day and the date thereof during the twelve months ended July 31, 1952, for Milwaukee Gas Light Company showing separately gas delivered to the Sewerage Commission of Milwaukee on that day.

I have copies of that exhibit which I can distribute to those who are interested.

(Applicant's Exhibit No. 70 was marked for identification.)

Mr. Foote: Our Exhibit No. 71 will be a schedule of present daily gas production capacity in therms of Milwaukee Gas Light Company including production of Milwaukee Solvay Coke Company showing kinds of gas.

(Applicant's Exhibit No. 71 was marked for identification.)

Mr. Foote: I might advise the staff that this exhibit has been modified slightly since the earlier copy was supplied in that the amount of pea coke required to operate the power plant has been reduced from 360 to 220 tons. We found that 360 was simply an error.

Hearing Examiner: How is that modification? In pen and ink?

Mr. Foote: No, sir. We have retyped the entire exhibit so that erroneous exhibits (on't appear in the record.

Our Exhibits 72 and 73: 72 is our contract between the Gas Light Company and the Sewerige Commission; and 73 will be an amendment to that contract. I will distribute copies of 72 first.

(Applicant's Exhibit Nos. 72 and 73 were marked for identification.)

Mr. Foote: Exhibit 74 is the current contract between the Milwaukee Gas Light Company and the Milwaukee Solvay Coke

Jf11 Company relating to the sale of gas.

(Applicant's Exhibit No. 74 was marked for identification.)

Mr. Foote: Applicant's Exhibit No. 75 will be a map of the territory served by the Gas Company showing the principal feeder mains.

(Applicant's Exhibit No. 75 was marked for identification.)

Mr. Foote: No. 76 is a plow-up of a portion of a map which was Exhibit 75, showing the connecting mains between the Coke Company and the Sewerage Commission and the Gas Light Company.

(Applicant's Exhibit No. 76 was marked for identification.)

Mr. Foote: Applicant's Exhibit 77 is the balance sheets of Milwaukee Gas Light Company and the Coke Company as of July 31, 1952, and statements of income and surplus for the twelve months period ended July 31, 1952.

(Applicant's Exhibit No. 77 was marked for identification.)

Mr. Foote: Our Exhibit 78 will be the current gas supply contract between Milwaukee Gas Light Convany and Michigan-Wisconsin Pipe Line Company.

(Applicant's Exhibit No. 78 was marked for identification.)

jf 12

Mr. Foote: Exhibit 79 is a statement showing the volume in therms of gas produced and gas purchased by Milwaukee Gas Light Company for the period ended July 31, 1952, showing the kind of gas in each case.

(Applicant's Exhibit No. 79 was marked for identification.)

Mr. Foote: Our Exhibit 80 will be a statement showing the present total gas storage capacity of Milwaukee Gas Light Company.

(Applicant's Exhibit No. 80 was marked for identification.)

Mr. Foote: No. 81 will be a schedule showing all the gas purchases and sales, stated in therms and in dollar amounts, between Milwaukee Gas Light Company, Milwaukee Solvay Coke Company, and the Sewerage Commission of Milwaukee for the years 1950 and '51, and for the 12 months ended July 31, 1952.

(Applicant's Exhibit No. 81 was marked for identification.)

Mr. Foote: No. 82 will be a statement showing the volume of gas in therms received by Milwaukee Gas Light Company from Solvay Coke Company and sold by Milwaukee Gas Light Company to customers other than the Sewerage Commission of Milwaukee for the 12 months ended July 31, 1952.

(Applicant's Exhibit No. 82 was marked for identification.)

Mr. Foote: All of these exhibits have been delivered to the staff previously at their request.

Hearing Examiner: Are you now offering Applicant's Exhibits 70 through 82, inclusive?

Mr. Foote: Yes, I am.

Mr. Clevenger: Mr. Examiner, I have no objection subject to this supplement: that if Mr. Foote can identify for us at this point which of those exhibits was prepared by Mr. Brenner and which were prepared by Mr. Black, so that we may know in advance who is responsible for the information on the exhibit.

Mr. Foote: I think that I can do that.

No. 70 was prepared by Mr. Brenner;

No. 71 was prepared by Mr. Brenner;

No. 72 and 73 are contracts which are currently in existence. They were not prepared specifically for this hearing. They are existing contracts.

Mr. Clevenger: They are true copies of existing contracts?

Mr. Foote: Yes.

74 is also a copy of an existing contract.

75 was prepared by Mr. Evenner.

76 was also prepared by Mr. Brenner.

Jf14

77 was prepared by Mr. Black.

78 is a copy of an exhibiting contract.

79 was prepared by Mr. Brenner.

80 was prepared by Mr. Brenner.

81 was prepared by Mr. Black.

82 was prepared by Mr. Brenner.

Mr. Clevenger: I understand that Mr. Brenner is the president of which of these companies?

Mr. Foote: Mr. Brenner is the operating vice president of the Gas Light Company.

Mr. Clevenger: Milwaukee Gas Light?

Mr. Foote: Yes.

Mr. Clevenger: Mr. Black is president of Solvay?

Mr. Foote: No. Mr. Black is vice president and treasurer of the Gas Light Company.

Hearing Examiner: Applicant's Exhibit 70 to 82, inclusive, are admitted in evidence.

(Applicant's Exhibit Nos. 70 to 82, inclusive, were received in evidence.)

Mr. Foote: We have Mr. Brenner here and would like to put him on the stand as our witness.

Hearing Examiner: Very well.

Jf15 Whereupon,

ERWIN C. BRENNER

was called as a witness, and having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Foote:

- Q Will you please state your name and address?
- A Erwin C. Brenner. I reside at 5800 North Kent Avenue, Milwaukee, Wisconsin.
- Q Will you state the position that you hold with the Gas Company?
- A I am vice president in charge of operations of Milwaukee Gas Light Company.
 - Q How long have you held that position?
 - A Since 1945.
- Q Will you please state your educational and experience qualifications?
- A I graduated from the University of Wisconsin in

 1919 with a degree of Bachelor of Science in Chemical Engineering. In the following year I was Research Fellow of the

 Wisconsin Gas Association and through additional work qualified for the degree of Chemical Engineer.

Since 1920 I have been in the employ of the Milwaukee Gas Light Company. I was initially assistant superintendent of the coal gas plant, and thereafter of the carbureted gas Jea16

water plant. I have been assistant engineer of manufacture, assistant engineer, chief engineer, and since February 1945 have been vice president in charge of operations.

I have long been a member of the Wisconsin Utilities

Association and the American Gas Association, and have participated in the activities of those associations. I have contributed numerous papers to both of these organizations on the matter of gas production and distribution.

Q Do you have the principal responsibility for determining the extent to which customers can be served with gas available to the gas company, determining when interruptible customers must be shut off, determining what standby facilities are necessary for proper operation of the gas company, and what steps must be taken in any emergency affecting the gas company's supply of natural or manufactured gas?

A Yes. As vice president in charge of operations

I am in charge of and deal with those problems.

Q Are you familiar with the operations of the Coke Company?

A Due to the extremely close relationship between the gas producing operations of the Coke Company and the operation of the Gas Company I have been generally familiar for the past 30 years with the factors affecting the production of coke oven gas and with the facilities of operation of the Coke Company which relate to the production of such gas.

1f 17

In addition, for 11 years, until 1939, I was a member of the board of directors of the Coke Company and familiar with its management problems. Naturally I do not have as detailed knowledge of the day to day operation of the Coke Company as I do of the gas company.

Q Will you state briefly the type of service furnished by the gas company?

A We are the gas utility in the City of Milwaukee and the adjacent areas in Milwaukee, Ozaukee, Washington, and Waukesha Counties. We furnish natural gas for residential, commercial and industrial use to approximately 227,000 customers and furnish principally coke oven gas to one customer.

Q Where does the Gas Company secure the gas it serves?

A Until the fall of 1949 Milwaukee Gas Light Company served only manufactured gas. In the fall of 1949 the Michigan-Wisconsin ANatural Gas Pipe Line was completed to Milwaukee and the Gas Company commenced conversion to natural gas service. That conversion was completed January 8, 1950, and since that time we have served natural gas exclusively except for coke oven gas furnished pursuant to a contract to one customer.

Q What is the corporate relationship between the Gas Company and the Coke Company and the American Natural Gas Company?

jf18

A American Natural Gas Company owns over 99 percent of the common stock of the Gas Company and the Gas Company owns 100 percent of the stock of the Coke Company which is pledged under the indenture securing the Gas Company's bonds.

Q Will you refer to the exhibit which we have admitted in evidence as Exhibit 70, a statement showing the maximum send-out in any one day and the date thereof during the 12 months ended July 31, 1952, and please summarize the information in that exhibit.

A The exhibit shows that the maximum send out of the gas company during the 12 months ending July 31, 1952, occurred on December 15, 1951, and amounted to 1,156,617 therms, of which 63,528 therms was coke oven gas delivered to the Sewerage Commission and 1,093,089 therms were delivered to other customers -- was natural gas delivered to other customers of the Gas Company.

Q Do you expect your peak day during the winter of 1952-53 -- that is the coming winter -- to be the same as the peak day during the 51-52 winter, or about the same?

A The peak day during the 1952-53 winter will depend among other things on minimum temperatures reached during that winter. We have had a substantial increase in the number of customers since 1951-52 winter and I would expect that our peak during the 52-53 winter will be greater than our 1951-52 peak.

Jf 19

Q What is the aggregate standby capacity of the Gas Company?

A Our aggregate standby capacity is approximately 455,000 therms per day, or approximately 42 percent of our maximum send-out of natural gas experienced to date.

Q What part does the Coke Company play in the operations of the Gas Company?

A The Coke Company is an integrated part of our operations. It supplies the coke oven gas we sell to the Milwaukee Sewerage Commission and is our basic emergency standby facility. From an operating point of view it supplies gas eminently suitable for mixing with our stored LPG and oil gas. Gas from the Coke Company can be brought into the Gas Company's distribution system more quickly than other standby facilities can be brought into operation.

Q In what major respects woild the bas of the Coke Company facilities hamper your operations?

A There are two major respects in which we would be seriously affected by the loss of the supply of coke oven gas. First it would be a serious blow to our preparations for an emergency caused by loss of our natural gas supply. Second, loss of coke oven gas would seriously complicate our day to day operations since, except in emergencies, we would have to serve the Sewerage Commission out of our natural gas supply, which is already fully committed.

1120

The alternative requirement of our contract with the Sewerage Commission that we supply oil at coke oven gas equivalent cost, would be extremely expensive over any extended period.

Q Will you describe the physical means by which the Michigan-Wisconsin Pipe Line Company delivers natural gas to Milwaukee?

A The Pipe Line Company obtains its gas from the Hugoton field in Texas and Oklahoma and transmits it by high pressure pipe line to distributing companies, principally in Michigan and Wisconsin. The line branches at Sandwich, Illinois, southwest of Chicago, with one segment called the Wisconsin lateral running northerly through Wisconsin, terminating at Green Bay. The other segment runs around the lower end of Lake Michigan, up into central Michigan where it terminates in underground storage fields. Gas from the Michigan storage fields can be pumped back to Wisconsin loads.

Are you completely dependent on the proper functioning of the single line of pipe from Sandwich, Illinois, to
Milwaukee for your natural gas supply?

A Yes, we are.

Q What were your principal manufacturing facilities for gas prior to your changeover to natural gas operation?

A Our principal manufacturing facility was the Coke Company which furnished our based load gas. In addition we

- jf21 had water gas production facilities and, as demand increased,
 we installed liquified petroleum gas storage and vaporizing
 facilities to enable us to meet such demands pending the introduction of natural gas.
 - Q What was your peak day requirement prior to the changeover to natural gas?
 - A Our peak day prior to the introduction of natural gas occurred on January 27, 1948, and amounted to 287,501 therms.
 - Q How did you meet that maximum demand?
 - A On that day we obtained approximately 118,000 therms from the Coke Company, 83,000 therms from water gas production facilities, and the balance by withdrawal from LPG and from gas holder storage.
 - Q When the Gas Company converted to natural gas service, what became of the manufactured gas facilities to which you have referred?
 - A They were converted to standby facilities except that we continued to sell the gas produced in the normal operation of the Coke Company.
 - Q Will you explain what you mean when you say they were converted to standby?
 - A Natural gas has a higher heat content and higher specific gravity than the manufactured gas which we distributed prior to the introduction of natural gas. It was

necessary to readjust customer's appliances to utilize the gas for specific gravity and heat content of natural gas.

Standby facilities must have the ability to produce gas of substantially the same utilization characteristics as natural gas in order to make the standby service reasonably satisfactory. Hence we converted our water gas sets to produce a high Btu oil gas which, while not particularly suitable for direct distribution in lieu of natural gas, can be made suitable by mixing with appropriate quantities of coke oven gas or other gases.

Q Why is the high Btu oil gas not suitable for direct substitution for natural gas?

A We have equipped our plants to produce oil gas which will permit production of the maximum number of therms from the plants. Such oil gas is a rather heavy gas and would require different burner adjustments to operate satisfactorily in burners adjusted for natural gas.

Coke oven gas is a lighter gas which mixes readily with such oil gas and LPG which is another rather heavy gas, and forms a mixture which is virtually interchangeable with natural gas. Some oil gas can be made suitable for direct substitution for natural gas but to modify our oil gas production facilities to produce such gas would reduce our production capacity.

Oil gas and LPG can be modified with diluent gasses to

123

bring the heat content to that of natural gas and a possible substitute for natural gas thus obtained. However, the use of coke oven gas is preferable, and through its use, and because of its lightness, we can obtain a greater amount of mixed gas which is a satisfactory substitute for natural gas.

Companies that have no coke oven gas available have used LPG alone or with oil gas as an emergency substitute, but since we have coke oven gas available we have developed our operations and facilities to use coke oven gas to provide Milwaukee with a more satisfactory standby service.

- Q Why is it necessary to have standby facilities?
- A Standby facilities are essential to avoid interruption of services to customers in event of emergencies caused
 by interruption of supply of natural gas. Interruptions
 occur on all pipe lines. The Michigan-Wisconsin Pipe Line
 has suffered several interruptions, the most important of which
 occurred July 14, 1951, during the Kanses floods. That break
 lasted for about two weeks, and we would have been without gas
 had it not been for the storage fields in Michigan which were
 able to supply us during the period of the break.

We have been fortunate in that none of the interruptions to date have occurred between Sandwich, Illinois, and Milwaukee, where an interruption of supply could cause us to be without natural gas in a short time. However, we would be most unwise if we did not take cognizance of the fact that

J124

dependence on a single line of pipe necessarily involves the fact that something may malfunction. If we were in a business which was not vital to the lives, as well as the well-being of a large number of people, we might be able to afford to take the chance that we will be entirely without natural gas for a period of time.

However, in a gas utility we can not afford to take that risk if there is a reasonable way to avoid it, and that is where the standby facilities come in. They are the insurance that the city will not be cut off entirely from a source of gas, with the grave and perhaps tragic consequences that may result.

Q How important do you think it is to have standby facilities?

A I believe it is essential because I do not believe thatwe can run the risk of having no gas to supply. There are a number of things which can happen to a pipeline and have happened to other lines. In our particular situation one of the greatest possible dangers is that there might be a fire either at the compressor station at Sandwich, Illinois, or at the Milwaukee City Gate Station.

Naturally, all precautions to prevent such a fire are taken, but within the past few years there have been a number of instances where serious fires have occurred at compressor stations at modern natural gas pipe line systems. Naturally

the nearer to Milwaukee the break occurred, the sooner our gas supply would be curtailed and we would have to use our standby facilities. Aside from fire there are other accidents which may occur ranging from a blow-out of a section of line to unforeseen circumstances such as the case where an airplane crashed and broke an underground natural gas line.

Another matter which gives us concern, particularly in times like these, is the possibility of deliberate sabotage of the line. Milwaukee is an important defense production center and gas is a vital commodity in the various manufacturing operations. Sabotage of the transmission line to Milwaukee would be extremely hurtful, particularly in the absence of adequate standby facilities. Then, too, there is always the possibility of strikes.

- Q How much standby capacity should a company have?
- A From the operating point of view it would be desirable to have enough standby to meet the total demands on the company at any time, but we recognize that the question of cost makes such an ideal standby situation impractical and in fact the question of cost is the principal factor in determining the amount of standby that it is practical to have.

Perhaps I could answer your question best by saying that we want all of the standby we can get, but since 100 percent standby is not economically practicable, we must be satisfied with a standby capacity which will permit us to meet

1126

emergency needs in an emergency period.

Q You have indicated some of the reasons for which coke oven gas is desirable as a standby facility. Are there any additional reasons particularly applicable to the Gas Company making the Coke Company a desirable standby facility?

A The Coke Company represents a nearly ideal standby facility for gas for several reaons. In the first place, as I pointed out coke oven gas is highly desirable for mixing with other gas produced by the standby facilities in order to supply a satisfactory substitute for natural gas.

In the second place, gas from the coke plant is available on extremely short notice in considerable quantities.

Under our contract with the Sewerage Commission we can divert regular production of coke oven gas from the Sewerage Commission in event of emergency and the Coke Company can supply us with 110,000 therms of coke oven gas within a very short time by putting its producer plant and LPG plant in operation for under-firing.

In the third place, the Coke Company represents a very low cost standby facility so far as the Gas Company is concerned. To provide equivalent daily standby capacity even in the form of storage of LPG, would involve costs in excess of the standby fee paid to the Coke Company and such standby facilities would be far less desirable for several reasons.

Why do you consider the Coke Company a low-cost

Jf27

standby?

A As I have pointed out, the Coke Company represents a standby of 110,000 therms per day. For such standby we pay an annual fee of \$100,000. Such fee is not only less than the annual cost of other standby equivalent to 11,000 therms \(\begin{align*} \frac{10}{2} \end{align*} \) per day, but it is less than the Coke Company management believes compensatory for its standby service.

The fee paid to the Coke Company is intended to compensate the Coke Company for the additional costs it incurs through the maintenance of its producer plant and LPG facilities for underfiring and for the limitations imposed on its coking operation by the requirement that it deliver a minimum of 60,000 therms of coke oven gas to us daily.

The fee was set by the Wisconsin Commission as the maximum it would allow between affiliated companies. If the Coke Company were not affiliated, I would expect that fee to be higher.

Q Will you explain why other forms of standby are less desirable?

A LPG as a standby is merely a storage proposition.

Since the gas is in liquified form it can be stored in a relatively much smaller space than in the gaseous form, but LPG facilities are essentially merely storage facilities.

While it is useful over shorter periods, LPG is a relatively expensive gas and during the winter months it is

1128

extremely difficult to secure replacement of supplies of butane and propane.

We have found that we could not expect to replenish our butane and propane supplies anywhere near as rapidly as we would be able to use them in the event of an emergency during the winter months. Our oil gas facilities are less desirable than coke oven facilities because of the high cost of the necessary oil and because of the problems involved in obtaining sufficient quantities of oil.

We would need to obtain nineteen 10,000 gallon tank
cars of oil each day in order to keep operating our oil gas
plant at capacity after exhausting our gas oil in storage.
While the problem of obtaining oil is not as acute as obtaining butane or propane since there are more oil tank cars
available, over any extended period in winter it would be
very difficult or impossible.

I understand that Michigan Consolidated Gas was unable to secure the quantities of oil needed to meet its requirements when called upon to produce large quantities of oil gas, primarily due to transportation difficulties.

In addition the manufacture of oil gas results in the formation of heavy tars and tar emulsions which have to be removed from the system continually and disposed of. This presents a considerable problem in extended operation of oil gas facilities.

Jf 29

Q Mr. Brenner, will you refer to the document which was admitted as our exhibit No. 71, the schedule of present daily gas production capacity in therms of Milwaukee Gas Light Company and tell us whether this exhibit shows how long a period you could operate each portion of your gas production and storage facilities on the basis of supplies normally carried on hand?

A We normally have on hand sufficient LPG for approximately six days capacity operation and sufficient gas oil for approximately seven days capacity operation. The Coke Company ordinarily has coal on hand for two to four months coking operation and has sufficient pea coke for about 14 days operation of its producer plant.

After that period we would either have to obtain additional peak coke outside or divert a portion of their coke production to the production of peak coke. The coke plant has approximately six days of LPG on hand and after that time would have the same problem obtaining additional LPG as the company would have.

This all means that the Coke Company could supply approximately 110,000 therms of coke oven gas for six days, and thereafter could supply approximately 88,000 therms of coke oven gas a day for several months.

In a real emergency this amount could be increased somewhat by a change in the type of coke being produced. Jf30

Q Why is it necessary or desirable to have facilities for the production of gas which would not be exhausted within a week or so?

A Although we hope it is unlikely, there is always the possibility that a pipe line break may last for a longer period than a week, or that two breaks may occur successively. The Michigan-Wisconsin line was actually out for about 14 days during the Kansas floods in 1951. Aside from those considerations we are concerned with the necessity of an emergency supply of gas for Milwaukee in the event of sabotage, and with the fact that during a period of war, with various problems a war may bring, it may become essential in the public interest to furnish manufactured gas as well as natural gas to consumers over a period to avoid extreme hardship.

Of course, only in a grave emergency could we consider any such distribution of manufactured gas because it would necessitate increased rates for service. We believe it is in the public interest to keep alive every possibility for increasing gas available to the Milwaukee area in the event of necessity.

Q If you didn't have the Coke Company as a standby facility, would it be necessary to provide additional standby facilities for the company?

A In that case we should increase our standby as the capacity of our standby facilities would thereby be reduced

by the loss of their most favorable and flexible and useful portion. The question of how much additional standby we should obtain is a very difficult one to answer, but I would anticipate that over a period of time we would have to give serious consideration to adding to our LPG storage facilities or developing another source of standby gas.

Q You have referred to the fact that you sell coke oven gas to the Milwaukee Sewerage Commission. Are such sales made by the Gas Company directly or does it act as an agent of the Coke Company?

A The Gas Company makes such sales directly. The Coke Company is not a party to our contract with the Sewerage Commission which provides, in substance, that we will sell to the Sewerage Commission and the Sewerage Commission shall purchase its entire heat requirements for the operation of its plant-up to a maximum of not to exceed 70,000 therms per day.

Our contract contemplates that we will deliver coke over gas in fulfilment of its minimum requirements of 60,000 therms per day and that we will deliver natural gas in fulfilment of any part of our contract which requires us to furnish up to 70,000 therms per day, which we do not fulfil with coke over gas.

For the first 60,000 therms per day or for all coke oven gas delivered exceeds 60,000 therms per day, the price to be paid by the Sewerage Commission is the sole equivalent cost

Jt

based on the cost of coal per therm to the Wisconsin Electric Power Company.

For other gas in excess of the foregoing amount the Sewerage Commission is required to pay a firm industrial gas rate computed as provided in the agreement. The contract provides that the Gas Company may interrupt deliveries of gas whenever it finds it necessary in order to continue its firm gas service to other customers. In the event of interruptions in excess of 72 hours, the Gas Company is required to sell gas oil from its storage tanks to the Sewerage Commission if it is available, except wrhere interruption is due to force majeur.

Fuel oil so sold is to be billed at a price equal to the price at which the equivalent heat value of coke oven gas would have been sold, and that the Gas Company is required to reimburse the Sewerage Commission for excess amounts, if any, it is required to spend elsewhere to obtain fuel oil which the Gas Company was unable to deliver under such circumstances.

- Q The contract which you have been summarizing is a contract between the Gas Company and the Sewerage Commission?
 - A Yes.
- Q That is the contract which was admitted in evidence as our Exhibit Nos 72 and 73, which is the amendment to it?
 - A That is correct.
 - Q Mr. Brenner, will you now tell us why the Gas Company

entered into that contract?

A The Sewerage Commission requires each day at least the amount of coke oven gas released by the Coke Company in the course of its formal operations. Naturally it is desirable to sell such gas rather than waste it.

In addition, the Sewerage Commission is able to use an alternate fuel whenever we need coke oven gas in our operations.

Q Why couldn't the Coke Company have contracted directly with the Sewerage Commission for the sale of its coke oven gas?

A It seems rather impractical for the Coke Company to attempt to sell coke oven gas directly either to the Sewerage Commission or to industrial users because the Coke Company has no franchise, no storage holders, or mains, and must deliver gas at a rate dependent on its coking operations rather than the needs of a consumer.

While the Sewerage Commission demand does not fluctuate greatly on a daily basis, it does vary from hour to hour during the day, and the use of storage facilities is necessary. The demand of any other industrial user would be quite variable and hence they would not be practical customers for the Coke Company to attempt to serve directly.

The Sewerage Commission moreover needs assurance that it can keep operating and it might be unwilling to purchase

1134

directly from the Coke Company. In short, the Gas Company was needed both to give assurance to the Sewerage Commission of a continuing supply of gas and to absorb the variations in demand of the Sewerage Commission.

Q If the Coke Company were in independent hands, what in your opinion could it do with the surplus gas?

A If the Coke Company were in independent hands I believe it would have difficulty in selling its surplus gas effectively to industrial customers because of lack of onecessary facilities, and I believe it would also have trouble selling such gas to the Sewerage Commission.

As a practical matter it seems doubtful that the Sewerage Commission would wish to buy from the Coke Company without the Gas Company as a prime contractor, and I believe that the Coke Company under independent management would probably find it could make a better deal with the Gas Company which needs the standby facilities than it could with the Sewerage Commission, so that even under independent management I believe that the Coke Company would probably continue to sell to the Gas Company.

The Gas Company would be almost compelled to make every effort to enter into a contract with the Coke Company not only because it would require the standby but because, due to the limited supply of natural gas available to the company, it needs the Coke Company production to meet its commitment to the

J135

Sewerage Commission.

By the same token the Sewerage Commission would have little incentive to enter into a contract with the Coke Company since it already has the Gas Company under contract to supply its requirements. Of course, a new contract between the Gas Company and the Coke Company would probably cost the Gas Company more money than its present arrangements with the Coke Company and would be less satisfactory.

Q Would direct contractual relations with an independent Coke Company give the Gas Company the standby it needs?

A In my opinion such arrangement would not give the Gas Company the standby it needs on a satisfactory basis.

True, I believe that the Coke Company would make some arrangement with the Gas Company for the disposal of Coke Company surplus gas, but I believe that the arrangement would be considerably less favorable to the Gas Company under the existing arrangement for several reasons.

Q Will you please outline those reasons?

A In the first place, the Coke Company, as a separate company, would wish to conduct its operations so as to maximumize the amount of money it could make. They would therefore be inclined to discontinue the maintenance of its producer and LP facilities and use the maximum of coke oven gas gas for underfiring purposes.

J£36

able coke oven gas in amounts which it would not be willing to guarantee to the Gas Company at the best price it could negotiate. The Gas Company would be in the position of either accepting such limited amount of standby or paying the Coke Company an amount adequate to compensate it for maintaining its LP facilities and producer gas plant in standby capacity and conducting its coking operations in such a way as to keep a minimum of 60,000 therms of coke oven gas available.

The price of such service might well be considerably in excess of the \$100,000 fee which the Public Service Commission of Wisconsin has permitted to be charged. Therefore, I believe, were the Coke Company under separate ownership, the cost of standby would be increased if we were to secure it through direct arrangements with the Coke Company.

Such increase would have to be reflected in our rates. In the second place, with the Coke Company under independent management we could expect a constant series of problems to arise as the interests of the Coke Company and the Gas Company conflicted over the matters such as the amount of different kinds of coal to be used in making of coke, which affects of course the amount of gas which is to be released.

We might also expect arguments over the quality of gas supplied by the Coke Company and failure to keep its specific

J£37

gravity as low as we desire and are able to require when the Coke Company is a subsidiary or an affiliate. We could expect differences of opinion over matters of metering. We always face the danger of a refusal of the Coke Company to cooperate in an emergency period.

We would have no power to assure ourselves that the producer plant and the LPG facilities at the coke plant were being adequately maintained. Other problems might be expected to arise in connection with scheduling of maintenance and replacement operations at the Coke Company. Such operations are now carried out in a cooperative schedule which is more than we could expect of an independent Coke Company.

In short, we would have lost a large measure of the flexibility in operation of our standby facilities. Even though an effort were made to provide contractually for such matters, or for as many as could be foreseen, we would have to expect to pay increased amounts to have the Coke Company run as we would desire.

We also face the possibility that either unforeseen circumstances might arise or for some reason the Coke Company might decide it was better to breach its contract and suffer such damages as the Court may award, if any, rather than to continue to run as we would consider necessary in the interests of gas service in the City of Milwaukee.

J138

It would be extremely difficult for us to demonstrate the amount of money damages for breach of some of the provisions of the standby contract if we had not had occasion to require the standby gas during the period of the breach prior to suit.

Applicant's Exhibit No. 74, the current contract between the Milwaukee Gas Light Company and the Milwaukee Solvan Coke Company relating to the sale of gas, is the existing contract between the Gas Company and the Coke Company, is it not?

A It 18.

Q Will you summarize the important provisions of that contract?

Hearing Examiner: At this point, let us take a recess of five minutes.

(Recess taken.)

P fls

monick tp #2 pl

Hearing Examiner: Let us come to order.

By Mr. Foote:

Q I think that just prior to the recess I had asked Mr. Brenner to summarize the important provisions of our Exhibit Number 74, the current contract between the Gas Light Company and the Coke Company, relating to the sale of gas.

A This contract was written to match the contract between the Gas Company and the Sewerage Commission to give the Gas Company the gas it needs to meet its commitments under its contract with the Sewerage Commission.

It also provides for maintenance of standby facilities at the Coke Company and for our emergency standby supply of such gas.

It provides that the Coke Company will make a minimum of 60,000 therms of coke oven gas available to the Gas Company each day and that in emergencies the Coke Company will make 110,000 therms of coke oven gas available to the Gas Company.

Also, the coke oven gas sold to the Gas Company for resale to the Sewerage Commission is sold at a rate paid to the Sewerage Commission for coke oven gas. The Gas Company is required to pay 5 cents per therm, plus taxes on such gas for any standby gas required and to pay the Coke Company a fixed annual fee of \$100,000 for maintaining

facilities as standby for the Gas Company.

Q Wouldn't that contract continue to provide the Gas Company with its standby even if the Gas Company were required to dispose of the Coke Company?

A Not satisfactorily. Even if a purchaser of the Coke Company were willing to accept that contract, the operating problems which I have outlined, would be present.

In addition, I think we must assume that either a buyer of the Coke Company would insist on termination of that contract prior to purchase, or would purchase assets rather than the stock of the Coke Company, or would reflect the effect of the contract in the price he was willing to pay for the Coke Company.

Moreover, that contract will expire in 1960. Therefore, I do not believe that the existence of that contract affects the conclusion I have expressed as to the operational disadvantage of the Gas Company of loss of the Coke Company.

Q Do you know of any other advantages to the public resulting from the present arrangement?

A The public benefits from the present arrangement in several ways in addition to those that I have previously mentioned.

One, the Sewerage Commission, which is a public body, obtains the advantages of gas as a fuel. Such advantages include cleanliness, ease of handling and control.

Two, the use of gas by the Sewerage Commission reduces the amount of soot and dirt in the city.

Three, the present arrangement is a satisfactory one for the disposal of coke oven gas of the Coke Company which is important to the operation of that company and helps to assure that the Coke Company can be kept in operation and will continue to furnish employment in the city of Milwaukee as one of the major metal working centers of the country, is benefited by a local source of metallurgical coke.

Q Where is the Coke Company located with reference to the Gas Company property?

A The Coke Company property is located in the harbor area of the city of Milwaukee about one mile south of our third ward station.

Q Will you refer to the map which has been admitted as our Exhibit No. 75, and state what that map shows?

A This is a map of the principal feeder mains of the Gas Company and shows the location of the gate stations where we receive natural gas from Michigan-Wisconsin Pipeline Company, as well as the location of stations where we manufacture and pump gas, and the location of the plants of the Sewerage Commission and the Coke Company.

Q Referring to the smaller map, which has been admitted as our Exhibit No. 76, will you state what that map shows?

A The smaller map is a blowup of a portion of the area included in the larger map and shows the relative locations of our Third Ward stations, West side station, and the plants of the Coke Company and the Sewerage Commission with the principal interconnecting mains.

Q Referring again to the smaller map, will you state what it shows as to the relationship between the Gas Company's Third Ward station and the plant of the Coke Company?

A The map shows the two 16-inch mains connecting the Coke Company plant with our Third Ward station, which is the station at which we manufacture oil gas. The map also shows the large mains connecting the Third Ward station with the west side station where our LPG storage is maintained.

These two stations, together with the Coke Company plant and the interconnecting network of mains, constitute the heart of our standby system.

Q So that the Coke Company plant then is closely integrated with your two principal stations?

A Yes. It is very closely integrated, as, of course, it must be since it is our source of coke oven gas which we need to supply the sewerage plant and which we need to be able to turn into the system readily in the event of emergency requiring the use of standby facilities.

Q Will you state what the scale is on that small blowup map?

A On the small map one inch is 1320 feet.

MR. Foote: I believe that is all we have to ask Mr. Brenner at this time.

MR. Clevenger: If the Examiner please, I would prefer to defer my cross-examination until the case in chief is in.

Hearing Examiner: I take it there is no objection to that course?

Mr. Foote: No. We have very little to ask Mr. Black, who is our other witness.

Hearing Examiner: Very well. We will suspend for the present with Mr. Brenner and have Mr. Black's direct examination.

Mr. Clevenger: May I at this point inquire whether or not the representative of the Wisconsin Commission has any questions?

Mr. Van Susteren: It will be perfectly agreeable to me.

(Witness excused.)

ERNEST G. BLACK

was called as a witness and, after having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

By Mr. Foote:

- Q Mr. Black, will you state your full name?
- A Ernest Gordon Black.
- Q Will you state your position with the company?
- A I am vice-president and treasurer.
- Q Will you state how long you held that position?
- A I have held that position for a little over two years in the Milwaukee Gas Light Company.
- Q Mr. Black, can you tell us approximately what portion of the Coke Company sales are used for metallurgical coke and how much is used for industrial coke, and how much for domestic coke currently?

A I have with me the most recent figures available, which are for the 12 months ended October 1952. In that 12-month period the total sales of the Coke Company were \$9,878,035, of which \$5,188,581 represents sales of foundry coke and \$3,479,924 represents the sales of furnished coke.

Those, I believe, would be the two main categories considered as metallurgical coke. In addition, the Coke Company sold industrial coke, including breeze, buckwheat

and pea coke in the amount of \$356,588.

The balance of the Coke Company sales for that period consisted of sales of domestic coke in the amount of \$852,942. From these figures, it is evident that the sales of domestic coke were less than 10 percent of the total sales for the period mentioned.

- Q Mr. Black, do you have available an annual statement of the American Natural Gas Company from which you could determine the proportion of the net plant of American Natural Gas Company system which is represented by the Coke Company plant?
 - A Yes, I have.
 - Q Will you give us those figures, please?

You might state first the plant account of the American Natural Gas Company and then the plant of the Coke Company, and derive a percentage, roughly.

A The net utility plant account of the American Natural Gas Company and its subsidiaries on a consolidated basis, as of December 31, 1951, taken from the published annual report of American Natural Gas Company, amounted to \$313,974,311.

The net plant account of Milwaukee Solvay Coke Company as of December 31, 1951 amounted to \$2,728,491, as shown by the published annual report of Milwaukee Solvay Coke Company for the year 1951.

P8

On the basis of these figures, the net plant account of Milwaukee Solvay Coke Company amounts to something less than one percent of the net plant account of the American Natural Gas Company and subsidiaries on a consolidated basis.

Mr. Foote: Thank you. That is all we have to ask Mr. Black.

Mr. Clevenger: Is this a convenient lunch recess?

Hearing Examiner: Yes.

We will recess at this point until 1:30.

(Whereupon, at 12 o'clock noon, a recess was taken, to reconvene at 1:30 p.m., of the same day.)

AFTERNOON SESSION (1:30 p.m.)

Monick tp 3 1:30 pm p9

Hearing Examiner: Let us come to order.

Mr. Clevenger: Mr. Brenner, will you take the stand, please.

Whereupon,

ERWIN C. BRENNER

was recalled as a witness, having been previously sworn, was further examined and testified as follows:

CROSS-EXAMINATION

By Mr. Clevenger:

- Q Mr. Brenner, if I remember correctly, you are the vice-president and operating head of Milwaukee Gas Light?
 - A That is right.
- Q Do you occupy any official position at all with the Coke Company?
 - A I do not.
- Q In your capacity as operating head of the Gas Light Company during the time that you have been in that position as well as prior positions with the company, I assume that you are familiar with the operations of the two companies prior to and since 1947?
 - A That is correct.
- Q Can you tell me when Milwaukee Gas Light Company acquired Milwaukee Solvay?
 - A I don't recall that date. I wouldn't trust to

my memory on that. I could find out what the date was.

- Q From whom did they acquire it?
- A They acquired it from -- I believe then it was the American Light and Traction Company.
- Q Do you know from whom the American Light and Traction acquired it?
- A I recall that there was an ownership by the Koppers Company at one stage. I don't recall what the details of that were, however.
- Q Do you recall what the original cost was to Milwaukee Gas Light when it acquired it from American Light and Traction?
 - A I don't recall that.
- Q Can you tell us what additions have been made to the Solvay plant since its acquisition by Nilwaukee Gas?
- A During the war period, when it was necessary to obtain the very maximum of output of coke oven gas, and delivery of gas to Milwaukee Gas Light Company, facilities were constructed at the Coke Company to distill or fractionate off of a very volatile gasoline the volatile portion which was largely butanes, pentanes, and possibly some hexanes, and these were mixed with producer gas for underfiring the solvay battery coke ovens.

That released an additional quantity of coke oven gas

from the heating operation and made it available for delivery to Milwaukee Gas Light Company.

Q What was the maximum capacity of Solvay under those conditions?

A I believe it was 120,000 therms. There were some days when that quantity was exceeded but I think it is fair to state that about 120,000 therms was the capacity, the maximum capacity which was developed at the coke plant.

Q Is that what you referred to when you talked about LPG underfiring?

A That is what I referred to as LPG underfiring.

In further answer to your question, subsequently and more recently, 20 additional ovens were constructed at the coke plant and placed in operation.

Q When you refer to the "war period," what years did that involve?

A That involves 1942 and through 1945.

Q Can you tell us what the approximate cost of those facilities was that were installed at that time?

A I don't recall what that cost was. It is available. We could provide it.

Q Would you do so?

A I will.

Mr. Clevenger: May we reserve an exhibit number for that?

Hearing Examiner: Yes. Let Applicant's Exhibit
Number 83 be reserved for that purpose. When the exhibit is
received and filed with the Docket Section, it will become
a part of this record.

(Applicant's Exhibit No. 83 was RESERVED.)

Mr. Foote: I presume you want the cost of all the underfiring facilities under both LPG and producer gas?

Mr. Clevenger: All the facilities were added during the period 1942 to '45.

Mr. Foote: Were they both added during that period?

The Witness: The producers were in existence at that time. There was no addition to the producer plant. Producer gas underfiring was in existence prior to the war.

Mr. Foote: So you just want the LPG?

Mr. Clevenger: Whatever it is that he is talking about that was added from 1942 to '45, the war period, which I understand was the first addition of any consequence made to the coke plant after Milwaukee Gas Light acquired it.

Mr. Foote: Milwaukee Gas Light didn't acquire it until 1947.

Mr. Clevenger: Didn't acquire what?

Mr. Foote: The Coke Company.

Mr. Clevenger: That is what I asked him.

Mr. Foote: He said he wasn't able to tell you the exact date.

Was 1t in '47?

Mr. Black: We recorded the Coke Company on our books on January 3, 1947.

Mr. Foote: That was January 3, 1947.

By Mr. Clevenger:

Q Then if I am correct, the war period additions to the coke plant involving the years 1942 to '45, to which you have just been referring, were made prior to the acquisition of the coke plant by the Milwaukee Gas Light Company?

A That is correct, with that recollection of date.

Q Do you know whether that was the first substantial addition made to the plant after its acquisition by the American Light and Traction?

A Yes, I believe that is the first substantial addition. The Producer Gas Plant was in existence prior to 1940. That I know.

Mr. Foote: How about prior to 1927?

The Witness: I am not clear as to when that Producer Gas Plant was constructed.

Mr. Clevenger: Is there anyone here who can tell us when American Natural acquired Solvay?

Mr. Dern: I can't.

Mr. Foote: It was around 1927.

P14

It might have been 1928. I am pretty sure it was either 1927 or 1928. I am pretty sure it was 1927.

Mr. Dern: We can furnish that.

By Mr. Clevenger:

Q Do I correctly understand you, Mr. Brenner, that it is your recollection that the Broducer Gas facilities were in place at the time American Light and Traction acquired the Solvay plant?

A I am not sure as to that date. I know that the matter of the installation of the Producer Gas Plant was a factor involved just about that time. From an operating standpoint, I recall that the coke plant was acquired to assure Milwaukee Gas Light Company of a gas supply.

That coke oven gas supply was very vital to us at that time.

Mr. Clevenger: In any event, the exhibit on which reservation has been made, covers the facilities concerning which Mr. Brenner just testified, those installed during the war period, 1942 to '45.

Mr. Foote: Yes.

Mr. Clevenger: I am quite certain that this docket will show some place the carrying value of the Solvay plant on the books of American Natural or American Light and Traction, its predecessor, as at about April 1947.

I don't at the moment have it in front of me. It runs

in my mind at some three million, three, or \$3,400,000.

Mr. Foote: I know what its tax cost was roughly, to American Light and Traction. What the carrying value was, I don't know.

Mr. Clevenger: We can verify that. It runs in my mind at about \$3,400,000.

Mr. Foote: I think you will find it is probably double that. The tax cost runs about double that.

Mr. Clevenger: I am referring to the cost that American Natural had on its books when it transferred to Milwaukee Gas.

Mr. Foote: It was transferred at book value. That was \$4,300,000. That is the value as now carried on the Milwaukee books.

Mr. Clevenger: The exhibits show its present carrying value.

Mr. Foote: It shows on the balance sheet.

Mr. Clevenger: Would you make this exhibit, Mr. Foote, cover the initial cost to American Light and Traction, the date of acquisition, and the additional investments of American's system, American Natural Gas and American Light and Traction, in that Solvay property up to the time it transferred it to Milwaukee Gas Light?

Mr. Foote: Yes.

By Mr. Clevenger:

- Q Mr. Brenner, when were the 20 additional ovens installed?
- A They were installed and put in operation at a relevantly recent date. I think the ovens had not been in operation for more than a year now.
- Q Were they installed to your recollection, during the year 1951?
 - A Yes, I believe that construction was in 1951.
 - Q Do you remember the approximate cost?
 - A No, I don't.
 - Q Was it something like \$2,000,000?
 - A I don't recall that figure.
- Q The annual report of Milwaukee Gas Light to the Wisconsin Commission, would it show that investment and when it was made?

Mr. Dern: Speaking of the investment in the coke ovens?

Mr. Clevenger: Yes.

Mr. Dern: I doubt if that would show up in the Milwaukee Gas Company accounts.

Mr. Foote: Mr. Clevenger, that figures at about \$1,300,000, as near as we can determine it at the moment.

Mr. Clevenger: Mr. Examiner, I refer to File Number 2. Application 21-A of United Light and Power Company in

Docket 54-25, about November 1945, page 8, where it says that, "The 35,000 shares of common stock of Milwaukee Solvay owned beneficially by American Light, were acquired July 26, 1928 from Koppers Coke and Gas Company in exchange for 38,272 shares of common stock at the par value of \$100 a share of American Light and Traction.

"In recording the acquisition on the books of American Light and Traction, the common stock of American Light issued in exchange was assigned a value of \$200 per share, the market quotation at that time being \$218 per share.

"The underlying book value of the common stock of Solvay as at August 31, 1945, after giving effect to the cash dividend or dividends proposed to be paid in conjunction with the consummation of the other transactions covered by the application, was \$4,353,936.

"The fixed capital of Solvay was carried on its books at actual cost which, if the company were a public utility subject to the uniform system of accounts, would be classified as account 100.1."

Item 13, amended, of the U5S for 1951, File 30-80-2, discloses that during 1951 National Research Board issued to Solvay Coke Company necessity certificate numbered TA-NC-1387 pursuant to application under Section 124(a) of the Internal Revenue Code, certifying that 85 percent

of the estimated aggregate cost of \$1,200,000 for the construction of additional ovens and equipment as was attributable to defense purposes, permitting accelerated amortization for income tax purposes over a five-year period; that the amount of such amortization claimed as deduction for Federal income tax purposes in the prior calendar year was \$6,298.07; that the effect of such deduction was to reduce by \$3,493 the amount of Federal income tax for the prior calendar year 1950, which would have been paid if depreciation on such facilities had been computed at normal depreciation rates.

I assume that the witness is satisfied that those are the official figures from the record on file with the Commission.

The Witness: I think that is fair to assume.

By Mr. Clevenger:

Q As I understand, then, Gas Light acquired from its parent, American Light and Traction, the ownership of the Solvay Coke Company stock as at January 1947.

Is that correct? And acquired at book cost to the American Light and Traction?

Mr. Foote: Not book cost to American Light and Traction, but the underlying book value at that time of the stock.

American Light's book cost was higher.

Mr. Clevenger: Was acquired at underlying book cost?

Mr. Foote: At underlying book cost.

Mr. Clevenger: According to this figure here, --

Mr. Foote: About \$4,300,000.

By Mr. Clevenger:

Q During the year 1947, do you recall, Mr. Brenner, or do you have any records or information from which you could tell us what the total sendout of Milwaukee Gas Light Company was for 1947?

A I don't believe that I have 1947.

Q That would be the report to the Milwaukee Commission which is included in this docket by reference.

A It would be.

Q Do you recall approximately, percentagewise, what the proportion of the total requirements for the year 1947 Solvay supplied?

A I have just been given a schedule which shows gas production and purchased, year 1946 to 1949. This shows that the total gas produced and purchased for 1947 was 68,140,902 therms, and of this 45,613,100 therms was manufactured gas purchased, which in this case is coke oven gas, and that represents 67 percent of the total gas produced and purchased.

Q As I understand the significance of the 1949 date, it is that natural gas became available to Milwaukee initially in November 1949, is that correct?

Natural gas was introduced in 1949.

p20

Q In November or December, is that correct, and conversion completed the following January?

The Witness: What is the date at which we completed our conversion?

Mr. Black: January 8, 1950.

The Witness: We introduced natural gas in the late Pall of 1949 and conversion took place in the latter part of 1949, and by early January of 1950 we were serving straight natural gas to our customers.

Q What was the situation between the introduction of natural gas into Milwaukee and the completion of the change-over in January?

Just what kind of service were you giving during that period?

vice area of the company in such a manner that we could introduce natural gas in the outlying districts, moving in toward the center of what was then the center of our distribution. In the initial period of change-over, the gas that was distributed was a mixture of coke oven gas, carbureted water gas, and liquified petroleum gas.

Successively as the districts remaining on manufactured gas decreased in the demand for manufactured gas, the LP gas was reduced and liquified petroleum gas was reduced.

190

Throughout that period we, as part of our change-over technique, delivered gas at a Btu and pressure such that the transition to natural gas could be made most readily while the appliances were being adjusted.

There occurred a stage then when the district or area remaining on standard gas could not take the full complement of coke oven gas. In that period the underfiring of the coke ovens with liquified petroleum gas and producer gas was tapered off until the stage when the coke plant was delivering to Milwaukee Gas Light Company only that coke oven gas which was surplus beyond their requirements for oven heating.

At that stage, the ovens, substantially all the oven heating was again taking place with coke oven gas.

Q During that same period, and in these same processes of change-over, were you also using Milwaukee Gas Light's own manufactured capacity?

A We were, in the early stages of that change-over.

As I have indicated previously in my answer, our own manufacturing facilities were cut back first, I think. We had some problems, if I may review, in controlling the specific gravity of our gas in the period just prior to the introduction of natural gas. We were operating under a therm rate. That permitted us to vary the Btu of our gas with the variation in specific gravity.

As the remaining districts on manufactured gas decreased their demand on the system, the heavier component of the three gases were being cut back and the specific gravity of the manufactured gas being delivered on the system again fell to the lower range of specific gravity so that we could adjust our Btu of gas delivered on to the city so that it represented the most favorable transitional gas.

It was strictly a technique in the process of converting customers' appliances from manufactured gas to a setting suitable for service at straight natural.

- Q See if I understand the substance. As I understand it, you divided the Milwaukee distribution area into what you call districts or zones?
 - A That is right.
- Q Were you working the change-over or the adjustment of appliances and the change-over in more than one
 district at a time, or were you taking it by districts and
 making the change-over complete in that district first?
- A With only very minor modification, we made the change-over district by district, and completed the change-over district by district.
- Q That brings to my mind one further question in connection with this investment in the Coke Company.

I think one of these contracts refers -- Exhibit 74, if I remember correctly -- to some expenditures that were

made by the Coke Company for additional facilities pursuant to a modification of the then existing contracts between the Coke Company and the Gas Light Company.

Article I of Exhibit 74 provides for the termination of the existing agreements between Milwaukee and Solvay, which were initially dated August 21, 1934 and subsequently mended by various amendments to and including one of April 3, 1943.

Subdivision 2 of that article provides that within 90 days after termination of the previous agreements, the seller -- which was Solvay -- should be reimbursed by the buyer for the balance of seller's investment in facilities for the production and use of substitute fuels, pursuant to the letter agreement of January 29, 1943 as amended by letter agreement of April 5, 1943.

Do you know what facilities they are referring to?

- A That related to/Producer Plant. I take that back. That related to the LP underfiring.
- Q That is the facility to which you referred awhile ago as being during the war period?
 - A That is correct. That is that period.
- Q I think you testified that you didn't know what the cost was?
 - A I don't recall that.
 - Q Do you remember what Solvay's balance of investment

was at the effective date of the present contract between Milwaukee and Solvay?

A No, I don't know what that is. We could get it for you.

Q Do you remember whether or not, in accordance with this contract, Milwaukee has reimbursed Solvay for its remaining balance of investment in --

- A I recall that it has.
- Q Do you remember the amount of that?

A No, I don't. I remember that that was part of the agreement, part of this agreement.

Mr. Clevenger: Mr. Foote, I wonder if on that Exhibit 83 reserved, since it seems to refer to the same facilities, if you would show the remaining balance of Solvay's investment in that at the effective date of this current contract, Exhibit 74, and the date of the reimbursement for that balance by Milwaukee Gas Light?

Mr. Foote: Yes, we can show that.

By Mr. Clevenger:

Q When was the effective date of this Exhibit 74, the contract between Milwaukee Gas Light and Solvay?

A I read from the contract itself that the agreement was entered into on the 22d day of August 1950.

Operationswise --

Q The effective date of the contract nevertheless

was to be as provided by Section 1 of Article III, is that correct?

- A I read that from Article I. That is correct.
- Q Section 1 of Article III provided that the effective date of the contract was to be the 21st day after the
 date the Public Service Commission of Wisconsin approved
 the contract. Is that correct?
- A I recall that date being involved. I can't say that I recall just how it was involved.
- Q You don't now recall actually the effective date of the contract?
 - A I don't.
- Q Do you have any information with you that would show the date of the approval of the contract by the Public Service Commission of Wisconsin?
- A The answer to that is No, and the answer as supplied by the representative of the Wisconsin Public Service Commission is that it is August 31, 1950.
- Q Then the effective date of Exhibit 74 will be on or about September 20, is that correct?
 - A 90 days after, that is correct.
 - Q 21 days after?
 - A 21 days after.
- Q I think you stated that you didn't remember when or in what amount the reimbursement by Milwaukee Gas Light

to Solvay was under paragraph 2 of Article I of the contract?

- A I don't recall.
- Q As I understand, that is to be supplied on the exhibit?
 - Mr. Foote: We will put that on Exhibit 83.

 By Mr. Clevenger:
- Q On that same point, I notice also in Exhibit 72, as amended, a reference to an item of \$60,000 which Milwaukee Gas Light advanced to the Sewerage Commission.

Do you recall that item?

- A I recall that item, yes.
- Q Can you tell us what facilities that advancement covered?
- A That advancement covered the cost of modifying the furnaces of sewage dryers and boilers at the plant of the Sewerage Commission.
- Q Which was a necessary adjustment for them to make in order to utilize the coke oven gas?
- A That is correct. Those changes had to be made and they had to be made at a date early enough so that the coke oven gas released to general customers in the Milwaukee Gas Light area, would have a place of utilization.
- Q As I understand, that was necessary because facilities which the Sewerage Commission had at that time,

and which it had been using previously, were adapted to coal or oil, or some other fuel?

- A That is correct.
- Q In this adjustment, how much difficulty and how much time would be required for the Sewerage Commission in the event of an interruption of service to readjust those facilities to utilize other fuel?

A That is a matter of a very few hours. The Sewerage Commission in the modification of its furnaces at the sewerage dryers and boilers, installed equipment which is adapted to dual fuel, can be operated on gas, and when required they can switch over to oil.

Q Do I understand that the necessity for that advance was because the Sewerage Commission did not have the material and did not have the funds with which to purchase the material?

A My understanding of their problem was that they were bound by regulations of the Commission which required advertising for bids and the examination of bids and awarding of contracts, all of which would have consumed far more time than could be permitted in this change-over.

Q Would it possibly also have acquired or do you know, the issuance of additional bonds by the Sewerage Commission?

A I don't know as to that. From an operating

standpoint, I know that they could not make the modifications of their equipment at a date early enough to coincide with the date at which coke oven gas would have to be delivered and a market found.

Q As I understand the contract, the facilities and materials so purchased from that \$60,000, became the property of Solvay, is that correct?

A No. They became the property of the Sewerage Commission. Solvay is not involved.

Q Has the Sewerage Commission ever reimbursed or in any manner paid the Gas Light that \$60,000?

- A To my knowledge it has not.
- Q Is it anticipated that they will?
- A It is not.

Q Would it be fair to assume that that item also is a part of the cost of the arrangement of the standby service of the coke plant?

A No, I don't think that it is fair to assume that that is part of the standby facility. Those dollars were strictly an expenditure expedient with respect to time and facilitating the over-all conditions under which we could get gas over to the Sewerage Commission.

There are other representations in this amendment which bear on that.

Q And the facilitation of getting the gas to the

Sewerage Commission was a part of the over-all arrangement which now exists whereby Milwaukee Gas Light has the coke plant as a standby service?

A In the over-all, yes.

I would like to point out if I may, that this amendment also provided for the use of facilities which the Sewerage Commission owned. In other words, lines across a river.

- Q Those were permanent facilities already in place and could not be taken out?
 - A That is correct.
- Q And were not in use by the Sewerage Commission, particularly for other purposes?
 - A They were not at that time.
- Q As a matter of fact, does the contract provide that the obligation is on Milwaukee Gas Light to deliver the gas on the premises of the Sewerage Commission?
 - A It 18.
- Q And the obligation is also on Milwaukee to take the gas from the premises of the Coke Company?
 - A That is correct.
- Q What substitute plan with respect to facilities had been considered for taking the gas to the Sewerage Commission premises prior to the arrangement for the utilization of the Sewerage Commission's river crossing facilities?

- A We had investigated another route which represented a somewhat longer overland route but would still involve a river crossing, but at a point farther up the river than is the point at which the existing lines cross the river.
- Q Do I understand that you consider the \$60,000 advance item as being in essence consideration for the granting by the Sewerage Commission to Milwaukee Gas Light of the right to use the river crossing facilities?
 - A That is correct.
- Q What, if any, storage facilities has Milwaukee
 Gas Light provided under the terms of the contracts between
 Milwaukee Gas Light and the Coke Company on the one hand,
 and Milwaukee Gas Light and the Sewerage Commission on the
 other?
- A By the fact that the lines, the pipelines existing between the Coke Company and the Third Ward station of
 the Milwaukee Gas Light Company, and between the Third
 Ward station of Milwaukee Gas Light Company and the West
 Side station as are shown on the map, Exhibit 76, they provide
 an interconnection there which permits us to use the gas
 holders, gas storage holders at the West Side station, as
 well as a smaller storage at the Third Ward station for
 the storage of any excess quantity of coke oven gas in any
 hourly operation which might be in excess of the momentary
 and the same period requirements of the Sewerage Commission.

- Q As a matter of actual operation, do you take any coke oven gas to the West Side station for storage?
 - A We have, yes. We do.
- Q Would you consider, then, that Milwaukee Gas
 Light's present investment in Solvay, plus the \$60,000, plus
 whatever amount it was that Hilwaukee reimbursed Solvay for
 the facilities that were installed in 1943, plus the
 \$100,000 a year, as the total cost of this standby arrangement?
 - A You are adding them all as a lump sum amount.
 - Q They are all involved, are they not?
 - A They are all involved, that is true.
- Q And they all represent actual cost of maintaining this present standby arrangement?
- A The amount that was paid to Solvay for the -that is the unpaid portion of the LPG facility, that of
 course is a carry-over strictly from the manufactured gas
 days. It is utilized and it is part of the standby facility.

In that sense I would say that you could include that as part of the over-all cost of standby.

- Q In the final analysis, nevertheless, it represents an additional investment of whatever amount it is in Milwaukee Gas Light in Solvay over and above what had already been reflected prior to that point?
 - A That is correct.

Q Will you trace for us the flow of gas from the coke plant as it is presently used in the system?

A Coke oven gas is delivered to the two 16-inch mains shown in Exhibit 76 at the property line of the coke plant and follows a route by way of both of those lines which, by the way, constitute a loop system.

Deliveries of coke oven gas to Sewerage leave the loop system at a point shown on that map directly opposite the harbor entrance, shown on that map as two circles, which represent valves, and then cross by way of the 8-inch and the 12-inch lines in the tunnel of the Sewerage Commission, over to the head house or shaft of the sewage disposal plant where the two lines again connect into a single 24-inch steel gas line.

By the way, we install that line on the property of the sewage disposal plant. The lines then extend over to a junction point, one branch going to the dryer house and the other branch going to the boiler house,

In operation, if there is an excess of coke oven gas at any moment beyond the requirements of the sewage disposal plant, such excess flows across the river into the Third Ward station by way of the line shown on this drawing as the one nearest to the harbor mouth, into the Third Ward station, and then is directed into the gas storage holder at the Third Ward station.

This is about a 850,000 cubic foot holder at that point. If the excess of coke ove gas continues to accumulate in that holder beyond the capacity of that holder, pumping equipment at the Third Ward station pumps that gas by either of the two lines connecting the Third Ward station with the West Side station and then into one of the six billion cubic foot gas storage holders which is set aside specifically for that purpose.

When the reverse situation then exists, that the requirements of the sewage disposal plant are greater than the production at the coke plant, successively the coke oven gas in storage at the Third Ward station and at the West Side station are pumped back into the loop system for delivery to the sewage disposal plant.

Q See if I understand that. Referring to Exhibit 76, the coke oven gas for delivery purposes to the sewage disposal plant goes through the 16-inch line marked on that plat as South Water Street?

A Not exclusively. It goes through the other one as well. The pressure drop in a single line is greater than what is advantageous to operate the pumping equipment at the coke plant in order to maintain the desired delivery pressure at sewage.

Q When it goes through the 16-inch line shown here as the South Barkley Street line, how then does it get back